

FRIANYL® B3 H V0

FRIANYL®

Designed for any electrical application that require self-extinguishing properties, excellent surface quality and flexibility of use.

Product information

Resin Identification	PA6-FR(30)	ISO 1043
Part Marking Code	>PA6-FR(30)<	ISO 11469

Rheological properties

Moulding shrinkage range, parallel	1.1 - 1.5 %	ISO 294-4, 2577
Moulding shrinkage range, normal	1.1 - 1.5 %	ISO 294-4, 2577

Typical mechanical properties

	dry/cond.		
Tensile modulus	3300 / -	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	70 / -	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	3.2 / -	%	ISO 527-1/-2
Flexural modulus	3000 / -	MPa	ISO 178
Flexural strength	120 / -	MPa	ISO 178
Charpy impact strength, 23°C	40 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	3 / -	kJ/m ²	ISO 179/1eA
Izod notched impact strength, 23°C	3.5 / -	kJ/m ²	ISO 180/1A
Poisson's ratio	0.37 / - ^[C]		

[C]: Calculated

Thermal properties

	dry/cond.		
Melting temperature, 10°C/min	225 / *	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	70 / *	°C	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	190 / *	°C	ISO 75-1/-2
RTI, electrical, 0.75mm	130	°C	UL 746B
RTI, impact, 0.75mm	95	°C	UL 746B
RTI, strength, 0.75mm	130	°C	UL 746B

Flammability

	dry/cond.		
Burning Behav. at 1.5mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	yes / *		UL 94
Glow Wire Flammability Index, 0.75mm	960 / -	°C	IEC 60695-2-12
Glow Wire Flammability Index, 3.0mm	960 / -	°C	IEC 60695-2-12

Electrical properties

	dry/cond.		
Comparative tracking index	600 / -		IEC 60112

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Physical/Other properties

	dry/cond.		
Humidity absorption, 2mm	2/*	%	Sim. to ISO 62
Water absorption, 2mm	9/*	%	Sim. to ISO 62
Density	1170/-	kg/m ³	ISO 1183

Injection

Drying Recommended	yes
Drying Temperature	80 °C
Drying Time, Dehumidified Dryer	2 - 4 h
Processing Moisture Content	≤0.1 %
Melt Temperature Optimum	245 °C
Min. melt temperature	235 °C
Max. melt temperature	260 °C
Screw tangential speed	≤0.2 m/s
Mold Temperature Optimum	70 °C
Min. mould temperature	60 °C
Max. mould temperature	90 °C

Characteristics

Processing	Injection Moulding
Delivery form	Granules
Additives	Flame retardant, Non-halogenated/Red phosphorous free flame retardant
Special characteristics	Flame retardant, Heat stabilised or stable to heat